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# A typo-chronological table of Late Roman amphorae from Lydian Tripolis

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The ancient city of Tripolis is located within the boundaries of Yenicekent, Buldan and Denizli in the south-west of modern Turkey (**fig. 1**). Tripolis was first founded under the name Apollonia in the Hellenistic period at the crossroads of the regions of Phrygia, Caria and Lydia. Spread over an area of about 3 km<sup>2</sup>, the ancient city is on the southern slope of a hill overlooking the valley on the north-western edge of the Lycus/Çürüksu Valley. Short-term archaeological excavations were carried out in Tripolis in 1993 and between 2007 and 2009. A third phase of excavations was launched in 2012, with the author acting as scientific consultant, and is still on-going.

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The recent archaeological research in Tripolis, which remains within the boundaries of the region of Lydia, shows that the earliest settlement in the city dates from as early as the Chalcolithic Period and continued until the 11th century AD, with some breaks over this long period. The major earthquakes that occurred in the city in the third quarter of the 3rd century and the third quarter of the 4th century AD allowed the formation of closed contexts. It is clear that these contexts will play an important role in dating the finds to be obtained in the archaeological excavations to be carried out in Tripolis and the regional cities.

This paper analyses the Late Roman amphorae found in recent systematic excavations at Lydian Tripolis, not only in order to establish the main areas of origin of imported goods but also to identify an important series of local products. These amphorae are dated in general to between the 4th and 6th centuries AD.

## Local amphorae

The 298 complete and fragmentary amphorae examined in this paper were found in the Arched Building adjacent to the east of Hierapolis Street, in the house at Sector 7S-8H, on the Colonnaded Street, and at the church located in the eastern extension of the street, where archaeological excavations were carried out (**fig. 2**). The amphorae, which displayed analogous



Figure 1: Map of cities mentioned in the text

typological and petrographic characteristics, were evaluated under two main headings as local and imported. Of them, the first three types were local or regional productions and Types 4 and 5 comprise imported amphorae. The general typological characteristics of the amphorae considered to have been local products are as follows:

A characteristic feature of the local amphorae is the rough division of their somewhat piri-form bodies into two parts, sometimes well marked by a carination. A common feature of their necks, the shape of which may vary in details, is that they are relatively short, broad and rather tronco-conical. The handles, with an elliptic section, which originate from the middle of, or slightly below the neck, were attached to the upper half of the body. Observations of the less than a dozen well-preserved examples indicate that the bases were generally flat and provided with a ring foot or, in some cases were indented. The exterior surface of the body is decorated with shallow, horizontal/parallel grooves from the neck to the base or the lower parts of the body. Apart from the grooves, the upper half of the body of some vessels bears various types of incised *graffiti*<sup>1</sup>. All amphorae are self-slipped, and the slip colours are generally cream, light tile red,

1. All *graffiti* comprised of carelessly written letters in Greek and various figures/drawings created by means of a pointed tool, *post cocturam*.

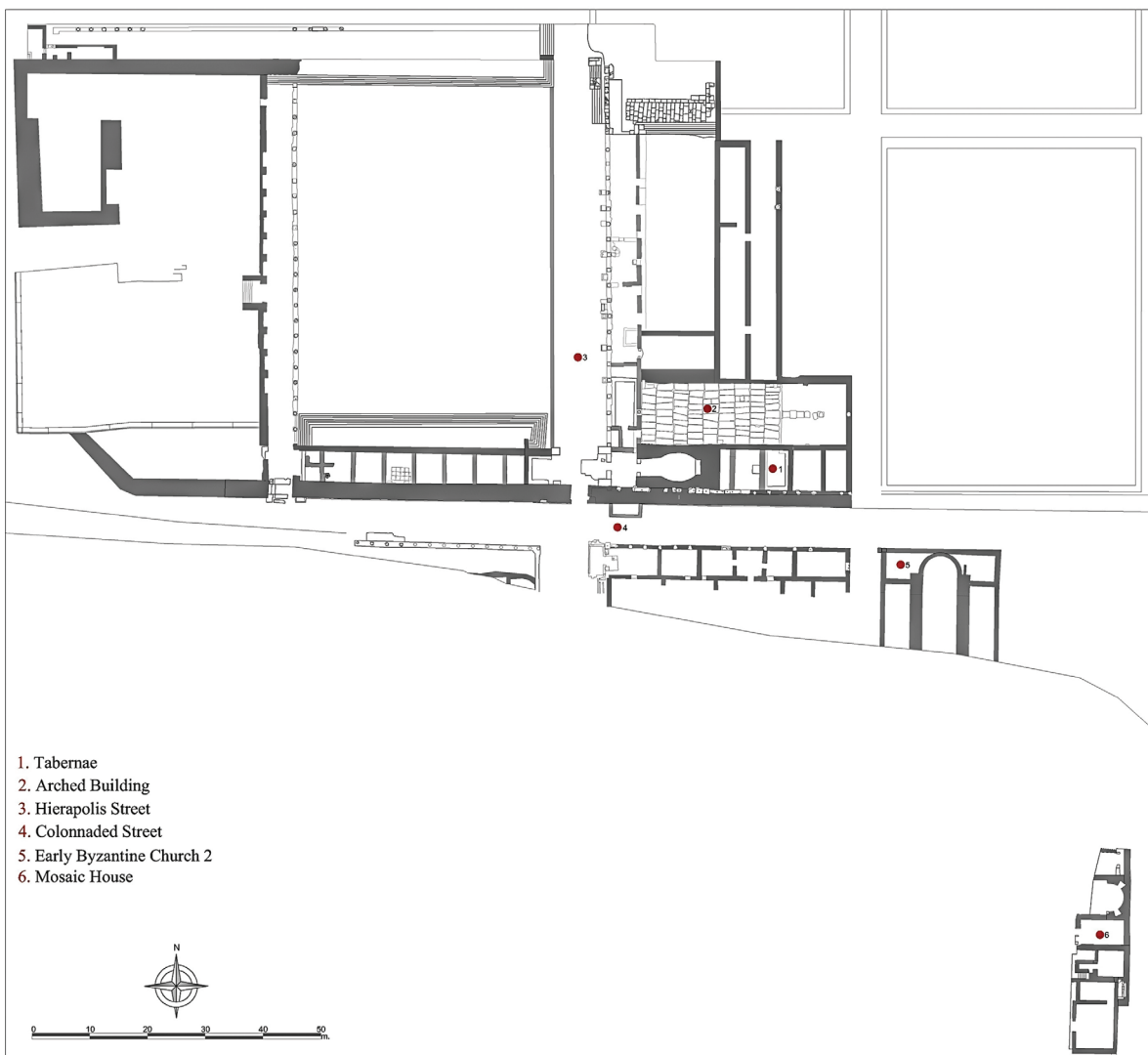


Figure 2: The distribution of the amphorae on the city plan

yellowish red, in various shades. Even though the fabric colours range across a wide repertoire, 5YR 5/6, 2.5YR 5/6, 2.5YR 6/8, 7.5YR 6/6 and 7.5YR 7/4 are the norm. Another common feature seen in all amphorae evaluated as the products of local workshops is the silver mica temper.

### Type 1 (fig. 3, 1-4)

Of a total of thirteen shards, four were found at the church, two in the house, and seven in the Arched Building. The handle, of semicircular section, springs either from the middle of the neck or from the lower neck and joins the part above the shoulder at an angle, to form a bow shape. A distinctive feature of the type with a flat rim (fig. 3, 1-2) is that the part between the rim and the end of the neck is conical. The upper body, reaching the end of the shoulder, narrows from here towards the base, this transition being marked by a sharp carination. If the two well-preserved

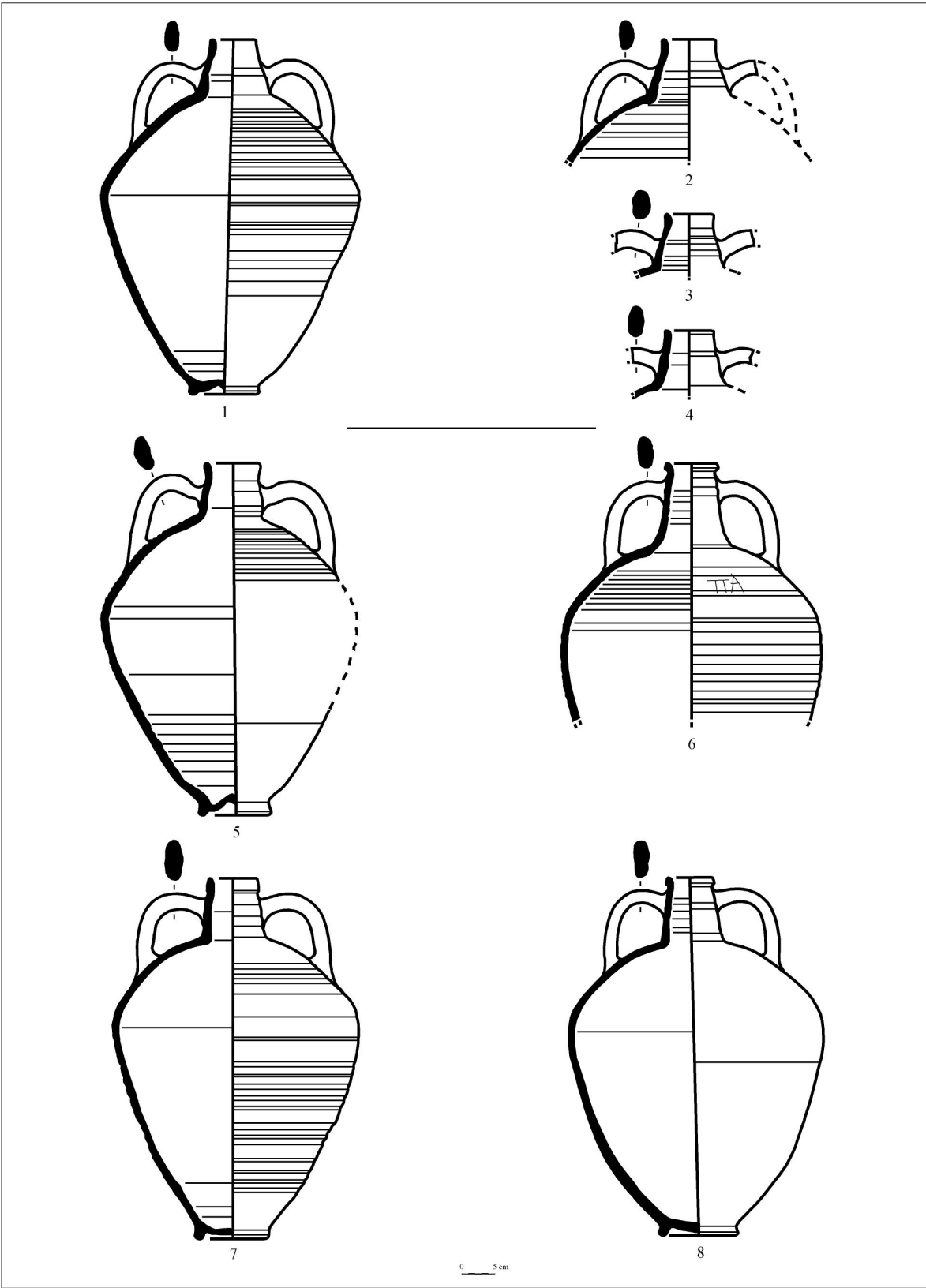


Figure 3: Drawings of Amphorae Type I- IIA. Tripolis excavation archives

examples of Tripolis and Hierapolis<sup>2</sup> are taken as the basis, it is seen that the bases are indented from outside inwards. Their slip colour is 5YR 7/3, and their fabric is generally 7.5YR 6/6.

Two of the eight complete or almost complete amphorae found *in situ* on the floor of the *pastophorion* of the church, discovered in Tripolis in the excavation season of 2012, belong to Type 1<sup>3</sup>. Examples of Types 2A and B were also present in the same assemblage. Two coins were found with them dated to the early 5th century AD.

Parallels for Type 1 amphorae were found in Laodicea and Hierapolis, both located near to Tripolis<sup>4</sup>. An identical amphora was found in Laodicea in a *taberna* behind the portico adjacent to the north of the so-called Syrian Street that provided an uninterrupted chronology from the 4th century to the first quarter of the 5th century AD<sup>5</sup>. The date proposed for a similar amphora found during the surveys in Laodicea, however, is the early 7th century AD<sup>6</sup>. The date suggested for the amphora found at Insula 104 in Hierapolis is the 6th to 7th century AD<sup>7</sup>. Two more amphorae were found at Insula 104, where one of the residential quarters of the proto-Byzantine period was located. The amphorae detected in the two rooms of the *House of the Painted Inscription* were dated to some period between the second half of the 6th century and the first half of the 7th century AD<sup>8</sup>. Amphorae of a similar type were found in a house that began to be used in the second half of the 5th century AD and was abandoned in the 7th century AD near the North Byzantine Gate in Hierapolis<sup>9</sup>. The 5th to 6th century AD was proposed for the examples from Hierapolis that were found in the Triton Fountain<sup>10</sup> and the theatre<sup>11</sup>. A group of amphorae with similarities to this type were discovered in layers of Phase VII, dated to the 7th to 8th century AD, at the church in *Anemurium*<sup>12</sup>.

Overall, given the dating of similar amphorae in these nearby cities and other finds obtained together with the amphorae in Tripolis, particularly in the *pastophorion* of the church, a date ranging from the mid-5th to 6th century AD might be suggested for Type I.

## Type 2 (*fig. 3, 5-8 and fig. 4, 9-13*)

Type 2 constitutes the most common type, found at almost every excavation site, particularly in the Arched Building, the church, Hierapolis Street, and the Colonnaded Street. A total of 177 complete or fragmentary amphorae of this type have been determined in the studies performed since 2012. From the well-preserved examples, it has been established that their heights were

2. RUGGIU, COTTICA 2007, fig. 4 (g); COTTICA 2007, fig. 11.
3. DUMAN 2013, p. 193-194, fig. 18, 19 (1).
4. Laodicea: ŞİMŞEK 2013, fig. 175 (the example in the middle in the second row); GELICHI, NEGRELLO 2000, fig. 38 (8). Hierapolis: COTTICA 2007, fig. 11; MASTRONUZZI-MELISSANO 2007, fig. 44 (75-76), fig. 45 (77); SILVESTRELLI 2007, fig. 11 (2); RUGGIU 2012, fig. 22 (b), fig. 26(b); POLITO 2012, fig. 17 (33), fig. 45 (33).
5. ŞİMŞEK 2013, p. 141.
6. GELICHI, NEGRELLO 2000, p. 157-158.
7. COTTICA 2007, p. 269.
8. RUGGIU 2012, p. 432-435.
9. MASTRONUZZI-MELISSANO 2007, p. 573.
10. SILVESTRELLI 2007, p. 334.
11. POLITO 2012, p. 198.
12. Although a difference was seen in the rims of the amphorae found in Anemurium, they display features analogous to Type 1 with the expansion seen from the rim to the ending point of the neck, the bow-shaped handles, and their spherical body. See WILLIAMS 1989, fig. 60 (575).

in the range of 53-56 cm and their depths from the inside of the rim in the range of 50-53 cm. With a capacity of 28-30 litres, both variants of the amphorae (see below) have similar sizes, and the distinctive characteristic of Type 2 with respect to the others is that their rims exhibit a thickened and slightly convex profile. Apart from the rim, two variants, A and B, could be distinguished, i.e. the examples with a basic profile and curved profiles.

*Type 2A: (fig. 3, 5-8 and fig. 4, 9-11)*

While it displays features analogous to Type 1 in terms of the body structure, its important distinctive characteristic is the thickened and slightly convex rim. The rim has a basic profile on the exterior. The rim has a slightly thick, rounded appearance in many of the amphorae in the group, whereas the rim is more sharply defined in a few cases. Given the well-preserved examples, it seems that the bases were sometimes flat or sometimes indented. The handles, which are notably large with a semicircular or grooved section, generally originated from the mid-point of the neck, which is variably thick and short, or thin and long, cylindrical or conical, and were attached to an area close to the upper point of the body (e.g. **fig. 3, 5-8**). Nevertheless, the finds also include examples in which the handles originated from the upper or lower part of the neck and were attached to the body. The frontal appearance of the handles may be either arch- or bow-shaped, and in a few examples, the arch-shaped handle profile rose to a higher level than the rim and was attached above the shoulder in an upright or nearly upright position (e.g. **fig. 4, 11**). Of the 114 shards belonging to Type 2A, the slip/surface colour is generally 10YR 7/3, whereas their fabrics are generally micaceous, with a hard texture and 7.5YR 7/4 in colour.

*Type 2B: (fig. 4, 12-13)*

The general typological characteristics resemble those of the previous type. The most important distinction from Type 2A is that Type 2B has a profile consisting of a folded band rim. Some 63 shards of this group were discovered in the excavations. They were detected at almost every site excavated in the ancient city, particularly in the buildings that could be classified as of early Byzantine architecture. Their slip and fabric characteristics resemble those of the previous type.

Findspots of the amphorae belonging to Type 2A and B other than Tripolis are Laodicea<sup>13</sup> and Hierapolis<sup>14</sup>. A few finds detected in the survey carried out in Laodicea date to the early 7th century AD<sup>15</sup>, whereas the 5th to 6th century AD was given for the examples discovered in the excavations in Laodicea<sup>16</sup>. Dates similar to those of the amphorae in Type 2A were generally suggested for the similar examples found in Hierapolis<sup>17</sup>. On the other hand, an amphora in which the features of Type 2A and B seem combined was found at the site with Code N° E 18<sup>18</sup>, together with a group of coins generally dated to the 5th to 6th century AD<sup>19</sup>. The amphorae in

13. GELICHI, NEGRELLO 2000, fig. 38 (1); ŞİMŞEK 2013, fig. 175 (the first three amphorae, the first row) and fig. 746.

14. SILVESTRELLI 2007, fig. 11 (1); MASTRONUZZI-MELISSANO 2007, fig. 43 (74); POLITO 2012, fig. 17 (34), fig. 45 (34).

15. GELICHI, NEGRELLO 2000, p. 157.

16. ŞİMŞEK 2013, p. 500, 503.

17. MASTRONUZZI-MELISSANO 2007, p. 573; SILVESTRELLI 2007, p. 334; POLITO 2012, p. 198.

18. The body profile had an ovoid structure. See CRAWFORD 1990, p. 99 (P63.294: 5411), fig. 572 for the neck and rim profiles.

19. CRAWFORD 1990, p. 98.

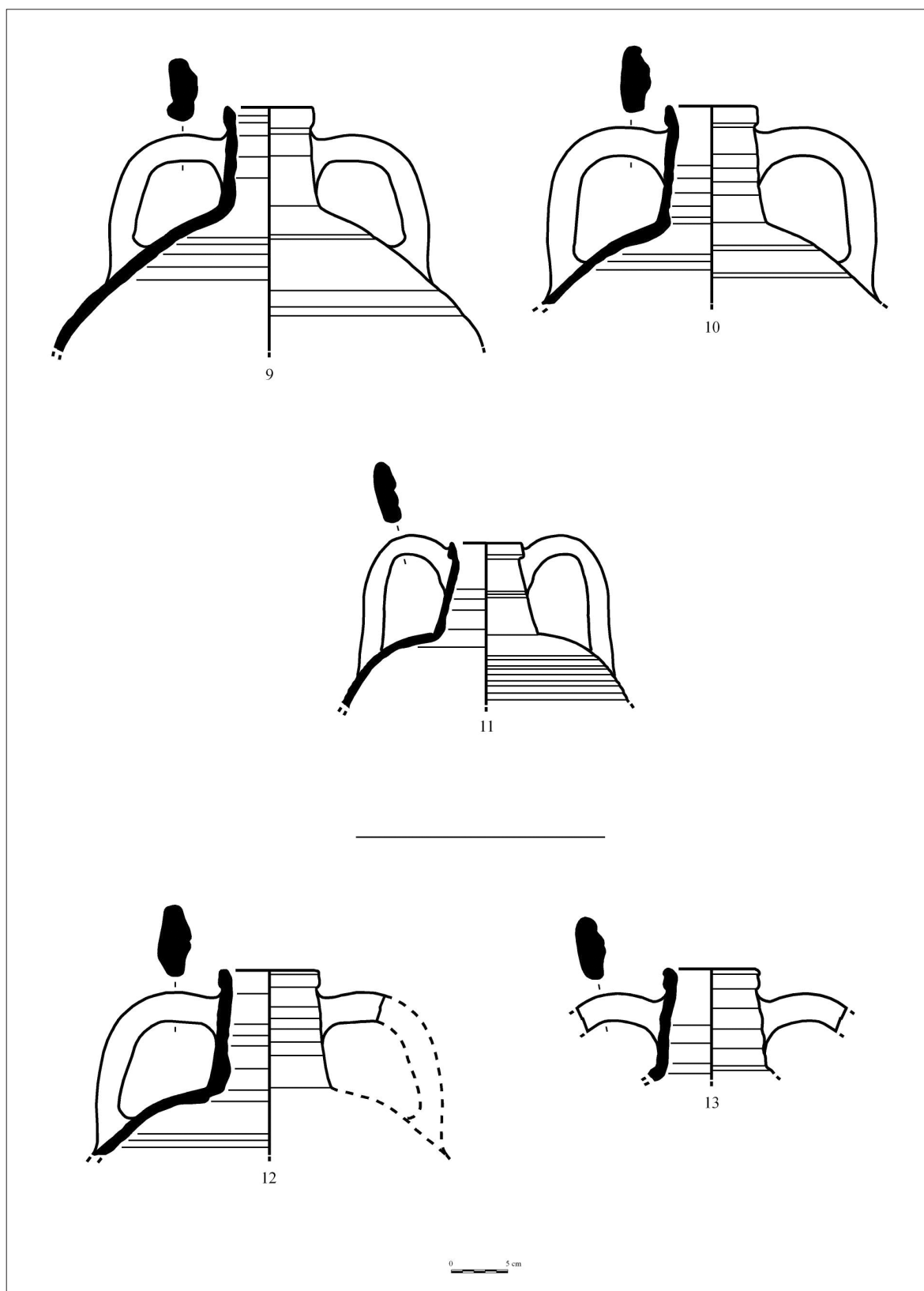


Figure 4: Drawings of Amphorae Type IIA- IIB. Tripolis excavation archives

Type 2B were found *in situ* together with Type 2A at the early Byzantine church<sup>20</sup>. Therefore, the amphorae in both subtypes, perhaps produced as local imitations of the LRA 1 with respect to their upper profiles, might be dated to the 5th to 6th century AD in parallel with the layers where they were found.

### Type 3 (fig. 5, 14-17)

The majority of the amphorae in the group, which consisted of 21 fragmentary amphorae, were found in the Arched Building. In this type with their characteristic thickened band rims, the neck is bell shaped narrowing towards the base, and the upper body is rather spherical and less broad than that of Types 1 and 2. Although we lack clear knowledge of the basic shape due to the unavailability of a complete example from the excavations carried out in Tripolis, it may be, depending on the overall structure of the shoulder and handles, that it had a similar body and perhaps base to Types 1 and 2. The handles with a grooved section originating from the middle or upper part of the neck were generally attached to the upper part of the body from the upper part of the ribbed neck. It is a common feature that the slip is 10R 5/6 and the paste colour is 5YR 7/4 in all cases. The silver mica- and limestone-tempered paste with fine pores and hard texture is pinkish cream, and the surface is fired light tile red.

The amphorae found in Tripolis display characteristics that are similar to those of the amphorae widely used in the early Byzantine period, particularly owing to the appearance of the handles attached to the upper part of the body from the neck and the spherical shape of the body. The examples found in Tripolis, probably one of the local production centres, occurred with coins dated particularly to the 5th century AD in the Arched Building.

## Imported amphorae

### Type 4 (Agora M273): (fig. 5, 18-20)

With a total of 20 shards found in the excavations, this ranks second among the types of imported amphorae found in the ancient city in terms of the frequency of finds. Two variants may be defined, A and B, with finds of Type 4B being the most common. The most important difference between the two subgroups is the handle section profiles and the ways of attaching the handles to the body.

#### Type 4A (fig. 5, 18)

Although only one example found in the Arched Building resembles this group in terms of general typology, it is distinguished from the general group by the shape of its handle section. The handle has a concave face, front and back, while the others have a thick rounded handle

20. In the *pastophorion* of the early Byzantine church in Tripolis, a group of amphorae were found in 2012 together with the tiles from the roof of this room. For the amphora unearthed in the excavations and included in Type 2B, see DUMAN 2013, p. 19 (2).



section and the rather flattened attachment of its handles to both the shoulder and upper neck. Its slip colour is 7.5YR 6/4, and the limestone-tempered paste is 2.5YR 5/6.

#### *Type 4B (fig. 5, 19-20)*

The group comprises 19 shards, two of which were found on the Colonnaded Street and 17 of which were found in the Arched Building. The slip colours are similar and generally 2.5YR 4/6, 5YR 7/4, and 10YR 7/4. The common features along with silver mica-tempered paste, 2.5YR 6/8, 7.5YR 6/6, and 5YR 6/6 in colour, is that their rims were rounded outwards and that the handles with a rounded oval section are attached to the upper shoulder and from just below the rim in a rather vertical position.

The amphorae classified as Type 4B can be typologically matched with Robinson Agora M 273<sup>21</sup>. The overwhelming majority of the amphorae in Type 4 found in Tripolis belong to sub-group B, and parallels can be observed over a quite extensive region which includes Ephesus, Knossos, Berenice, Beirut<sup>22</sup>, Butrint<sup>23</sup>, Marseille, Ravenna, and the M273-type amphora found in the Athenian Agora resembles the example from Tripolis when the rim and neck profiles are taken into consideration. Another example with rim and handle profiles quite similar to Tripolis Type 4 has been found in Berenice<sup>24</sup> and Marseille<sup>25</sup>. The date suggested for the amphorae of Agora M273 type in particular is the late 3rd to 4th century AD<sup>26</sup>. The amphora found in Ravenna and obtained in the context of the 5th to 6th century AD resembles the example from Tripolis<sup>27</sup>. Type 4B, an amphora group of west Anatolian origin (Samos), and Type 4A, probably the local variation of the same type, were generally found in the layers of the late 4th and early 5th century AD in Tripolis.

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#### *Type 5 (Kuzmanov IX) (fig. 5, 21)*

This amphora was found complete during the excavations of the latrine of the house located outside the fortification wall of the 4th to 5th century AD. It has an everted, triangular band rim and a long slightly tronco-conical neck. The transition from the end of the neck to the shoulder is soft, the body then narrowing down to a pointed base. The handles, with a nearly round and oval section originate from the lower part of the neck and, with a soft curve, join the part above the shoulder. Grooves are seen on the exterior surface from the lower half of the neck and on the lower body. In this example with hard paste, fine pores, and compact texture where mica and partially limestone temper is seen, the fabric is light brown and the exterior surface has a light and dark brown wavy appearance. The important production centres of this amphora<sup>28</sup>, classified as Kuzmanov IX in the literature and represented by this single example in Tripolis, may

21. ROBINSON 1959, p. 109-110, pl. 29 (M273).

22. REYNOLDS 2010, p. 96.

23. REYNOLDS 2010, p. 96, fig. 6 (c-d, g-h).

24. RILEY 1979, p. 234, fig. 95 (390).

25. BONIFAY, VILLEDIEU 1989, p. 36, fig. 14; PIERI 2005a, p. 135, fig. 90.

26. ROBINSON 1959, p. 83.

27. CIRELLI 2014, p. 543, fig. 5 (1).

28. KUZMANOV 1973, pl. I (9).

have been in Sinope<sup>29</sup>. Except for the production centres, the places where examples have been found in Anatolia are limited to Ephesus<sup>30</sup>, Bodrum<sup>31</sup>, Tarsus<sup>32</sup>, and the Cilicia region<sup>33</sup>. The type was common in early 5th century levels in Beirut 3rd-4th century, later examples being rare<sup>34</sup>. The amphora found in Tripolis is important proof that this type was occasionally distributed well inland, beyond the cities of the coastal regions. Even though several construction phases of the house dated to the 4th to 6th century AD were detected, six of the eight coins found at almost identical as the amphora of probable Sinopean origin which belong to the late 4th early 5th century AD<sup>35</sup>.

## Conclusion

The archaeological excavations carried out in Tripolis in recent years have demonstrated that the city was probably involved in the production of a common repertoire of free-standing flat bottomed shapes with the regional cities including Hierapolis and Laodicea in the Late Roman period. The most important proof of regional production is the amphorae particularly examined under Types 1-3 that are addressed in this paper. Although Type 1 with almost the same date among the amphora groups is more prevalent in Hierapolis, Types 2 and 3 stand out in Tripolis and Laodicea. However, some shapes dated to the same period in Laodicea are not seen in Tripolis and Hierapolis<sup>36</sup>.

As to the contents of the amphorae, we may note that there were traces of wine in an amphora of similar shape excavated in Hierapolis<sup>37</sup>. Apart from these types, the number of amphorae found in the buildings of religious architecture besides civil architecture in each of the three cities is noteworthy. The common ground for the amphorae, which prove the existence of a system of commercial relations in Hierapolis, Laodicea and Tripolis, must have been the market created for the pilgrims visiting the *martyrium* of St Philip at Hierapolis and the church complex of Tripolis. The production activities of the three cities in question for the common market also apply to the Late Roman *unguentariae* and *ampullae* located in the cities concerned<sup>38</sup>.

Besides the regionally produced amphorae, the imported examples such as Types 4 and 5, the number of which is rather limited as compared with local examples, are also quite important in that they indicate the regions with which Tripolis had commercial activities. Only the

29. TEZGÖR, TATLIÇAN 1997, fig. 13. Even though the amphora with a pointed base found in a kiln complex which produced amphorae in Sinope resembles the example from Tripolis in terms of its rim and the general structure of the shape. Production centers for carrot amphora see REYNOLDS 2005, p. 566.
30. BEZECZKY 2005, p. 210, pl. 4 (33-34).
31. ALPÖZEN, ÖZDAŞ, BERKAYA 1995, p. 69.
32. JONES 1950, p. 278, pl. 166 (831).
33. ŞENOL, KEREM 2003, p. 93, pl. 17 (16).
34. REYNOLDS 2010, p. 96.
35. Of the coins, the one with the earliest date belongs to the era of Constantius II (337-361 AD) and the one with the latest date to the era of Honorius (393-423 AD).
36. A group of Late Roman amphora that was found in Laodicea is being prepared for publication by the present author.
37. RUGGIU, COTTICA 2007, p. 171.
38. ŞİMŞEK, DUMAN 2007a, p. 295; ŞİMŞEK, DUMAN 2007b, p.78-79.

excavations of the third season have been completed in the city so far, and it is hoped that with new data from the next season of excavations in the city it will be possible to make further advances in the definition and dating of the local repertoire.

## Catalogue

1. TR.12.SC.PT.22    D: 6.6 cm    Columned Street    fig. 3  
Hard and cream clay, inclusion white mica flakes; surface cream, very rough.
2. TR.13.7S/8H.G.F.AY.06    D: 7.8 cm    Mosaic House    fig. 3  
Hard and red yellow clay, inclusion white mica flakes; surface pink, rough.
3. TR.13.7S/8H.G.F.MK4.27    D: 7 cm    Mosaic House    fig. 3  
Hard and red yellow clay, inclusion white mica flakes; surface light cream, rough.
4. TR.13.7S/8H.G.MK2.31    D: 7.3 cm    Mosaic House    fig. 3  
Hard and light brown clay, inclusion white mica flakes; surface light pink, rough.
5. TR.12.SC.PT.24    D: 7.8 cm    Columned Street    fig. 3  
Hard and cream clay, inclusion white mica flakes and lime particles; surface cream, rough.
6. TR.13.KA.679    D: 7 cm    Arched Building    fig. 3  
Hard and light brown clay, inclusion white mica flakes and lime particles; surface pink, rough.
7. TR.12.SC.PT.23    D: 7 cm    Columned Street    fig. 3  
Hard and pink clay, inclusion white mica flakes; surface cream, rough.
8. TR.13.MB.10    D: 6.2 cm    Taberna    fig. 3  
Hard and cream clay, inclusion white mica flakes; surface cream, rough.
9. TR.13.KA.3453    D: 6.8 cm    Arched Building    fig. 4  
Hard and pink clay, inclusion white mica flakes and stone particles; surface light brown, rough.
10. TR.13.KA.2074    D: 6.6 cm    Arched Building    fig. 4  
Hard and pink clay, inclusion white mica flakes; surface light brown, rough.
11. TR.13.KA.3452    D: 6 cm    Arched Building    fig. 4  
Hard and light brown clay, inclusion white mica flakes; surface pink, rough.
12. TR.13.KA.2330    D: 8 cm    Arched Building    fig. 4  
Hard and light brown clay, inclusion white mica flakes and stone particles; surface light brown, rough.
13. TR.13.7S/8H-G.MK1.22    D: 8 cm    Mosaic House    fig. 4  
Hard and light brown clay, inclusion white mica flakes and stone particles; surface light brown, very rough.
14. TR.13.KA.3391    D: 12 cm    Arched Building    fig. 5  
Hard and red yellow clay, inclusion white mica flakes; surface red, very rough.
15. TR.13.KA.1540    D: 10.4 cm    Arched Building    fig. 5  
Hard and light red clay, inclusion white mica flakes and lime particles; surface red, very rough.
16. TR.13.KA.2158    D: 12 cm    Arched Building    fig. 5  
Hard and light red brown clay, inclusion white mica flakes; surface red, very rough.
17. TR.13.KA.2741    D: 12 cm    Arched Building    fig. 5  
Hard and light brown clay, inclusion white mica flakes; surface red, very rough.
18. TR.13.KA.1164    D: 8 cm    Arched Building    fig. 5  
Hard and red clay, inclusion white mica flakes and lime particles; surface light red brown, very rough.
19. TR.13.KA.2475    D: 8.4 cm    Arched Building    fig. 5  
Hard and light red brow clay, inclusion lime particles; surface light brown, very rough.

20. TR.İ3.KA.İ995 D: 10 cm Arched Building

fig. 5

Hard and red yellow clay, inclusion white mica flakes; surface light brown, very rough.

21. TR.İ3.7S/8H-G.PT.İ0 D: 8.4 cm Mosaic House

fig. 5

Hard and light red brown clay, inclusion white mica flakes; surface light red brown, very rough.

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